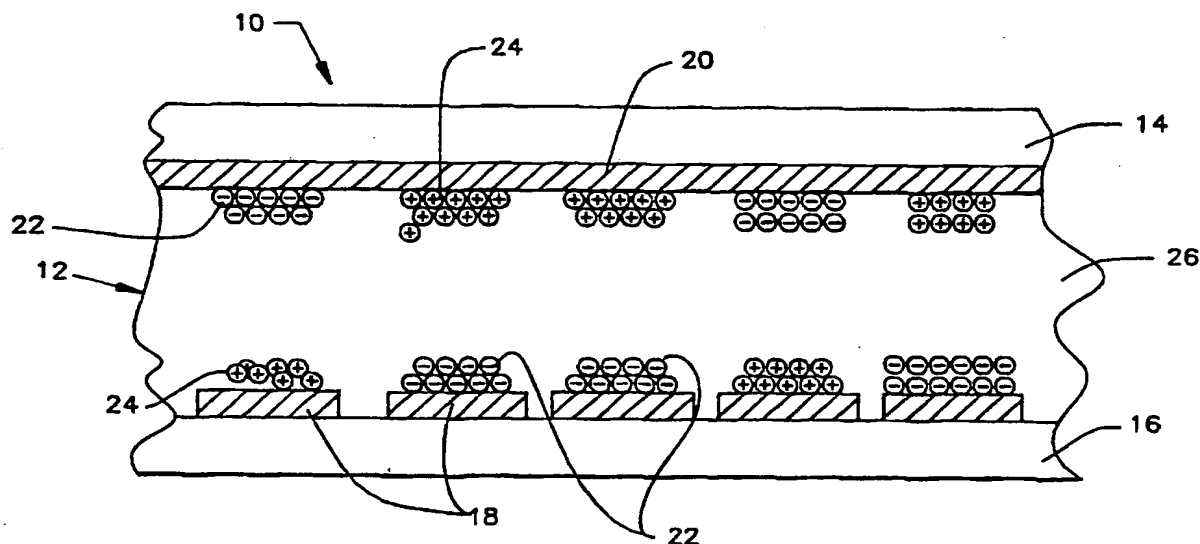




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁵ : C25D 13/06, 13/08	A1	(11) International Publication Number: WO 94/28202 (43) International Publication Date: 8 December 1994 (08.12.94)
(21) International Application Number: PCT/US94/05594 (22) International Filing Date: 17 May 1994 (17.05.94) (30) Priority Data: 08/065,871 21 May 1993 (21.05.93) US (71) Applicant: COPYTELE, INC. [US/US]; 900 Walt Whitman Road, Huntington Station, NY 11746 (US). (72) Inventors: HOU, Wei-Hsin; 750J Mickley Run Apartments, Whitehall, PA 18052 (US). SCHUBERT, Frederic; 18 Cordwood Path, Shoreham, NY 11786 (US). (74) Agent: PLEVY, Arthur, L.; Plevy & Associates, P.O. Box 1366, 146 Route 1 North, Edison, NJ 08818-1366 (US).		(81) Designated States: CA, JP, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i> <i>With amended claims.</i>

(54) Title: **METHODS OF PREPARING ELECTROPHORETIC DISPERSIONS CONTAINING TWO TYPES OF PARTICLES WITH DIFFERENT COLORS AND OPPOSITE CHARGES**



(57) Abstract

A dielectric dispersion (12) for use in an electrophoretic display (10) includes a dielectric fluid (26), a first plurality of particles of a first color (22) having a surface charge of a selected polarity dispersed within the dielectric fluid and a second plurality of particles of a second color (24) having a surface charge of opposite polarity to that of the first plurality and a steric repulsion thereto preventing coagulation of the first and second pluralities. In one embodiment, the first and second plurality of particles are each formed by separate two stage dispersion polymerization reactions. Each set of particles is formed with unique secondary and functional monomers. Corresponding charge control agents are added to the dispersion to establish opposite polarities on the respective particles.